

NCRN Inventory and Monitoring Program

Newsletter September 2004 (Number 009)

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1. Air Quality Forecasts

That's right folks...this year the air quality alerts won't end in September as they did last year. This year, there is a new standard for the amount of fine particulate matter (PM_{2.5}). These are particles that are smaller than 25 microns. These tiny bits of dust and aerosol are of concern because they can penetrate deep into lung tissue, especially when you are breathing hard. High PM_{2.5} levels can, and often do, happen at the same time as high ozone levels (i.e., hot stagnant summer days), but high PM_{2.5} values also occur during calm periods throughout the year (calm winter mornings, for example). As a result, the air quality forecasts will continue year round. So bookmark that web page for the DC Council of Governments (<http://www.mwcog.org/environment/air/forecast/>)! If you want more information about the similarities between PM_{2.5} and ozone health, go to our own ozone and PM_{2.5} health effects site: <http://www2.nature.nps.gov/air/aqbasics/human.htm>).

For more information about air quality in the National Capital Region parks contact Lee Tarnay, Air Quality Specialist (202-342-1443 x 214; Leland_Tarnay@nps.gov).

2. Topping it Off

The Center for Urban Ecology has taken a step forward to reducing the adverse environmental impacts created by impervious surfaces such as roads, buildings, and parking lots. A 7,200 square-foot lightweight extensive green roof has been installed for its ability to capture stormwater, improve insulation properties, conserve energy, prolong roof life, reduce ambient air temperatures, and provide habitat for birds, bees and butterflies. As far as we know, this is the first green roof to be installed on any National Park Service facility, and is a showcase to advocate green roof technology nationally. If you are in the neighborhood, please stop on by to take a look at it.

For more information about the green roof contact Doug Curtis, Hydrologist and Green Roof Extraordinaire (202-342-1443 x 228; Doug_Curtis@nps.gov).

3. More than just watching Birds

Watching birds has become a very popular past time in this region. Perhaps you are also among the many people who love to visit the parks to watch birds. With the help of many volunteers and organized birding groups, we have been able to document a surprising diversity of birds in the parks. Knowing what species are present, however, is only part of the story. Over the years, there have been many reports of bird declines in North America and especially in urbanizing landscapes such as those found here. Such reports make us wonder just how well the birds are doing in the National Capital Region, where parks are generally small and fragmented by roads and neighborhoods. In order to evaluate just how well the birds are doing in forests and grasslands, we have initiated two new projects with the Patuxent Wildlife Research Center. Specifically, we want to know to what extent the birds are using these habitats, how well they are doing there, and what, if anything, park managers can do to enhance bird habitat.

For more information on birds at each park visit each park's web site (www.nps.gov) and click on Nature and Science. For more information about the long-term monitoring program, contact Marcus Koenen, Monitoring Coordinator (202-342-1443 x 216; Marcus.Koenen@nps.gov).

4. Water Water Everywhere

This fall, Center for Urban Ecology hydrologists Jeff Runde and Doug Curtis are teaming up with the U.S. Geological Survey to install twenty-four water level loggers throughout National Capital Region parks. Funding is provided through the Inventory & Monitoring Program. Each water level logger, permanently installed in a stream, will record water flow continually for important streams and watersheds in each park. Knowledge of stream flow will be critically important for a correct interpretation of future water quality monitoring results, since many of the water quality variables change depending upon the magnitude and timing of flow after rainfall events. The USGS will assess the appropriateness of the twenty-four proposed sites, assist in the installation of two water level loggers, train regional staff in installation methods, and assist in the development of monitoring protocols. CUE hydrologists will install the remaining twenty-two loggers and develop the specific mathematical relationships between water levels and water flow for each site. Ongoing routine operations will fall under the responsibilities of an I&M water quality monitoring technician. Progress on this project can be tracked on the CUE website at: http://www.nps.gov/cue/programs/water/water_level_logger.htm

For more information about water quality in the National Capital Region parks contact Marian Norris, Hydrologist (202-342-1443 x 206; Marian_Norris@nps.gov).

5. Update from the SAC

The Science Advisory Committee (SAC) guiding the Inventory and Monitoring Program just had a meeting to discuss the final selection of ecological indicators for long-term

monitoring. Since the last SAC meeting the list of indicators has been whittled from about 51 down to 21. Slight amendments were made to the final selection and their associated monitoring objectives. The Board of Directors will review the recommendations made by the SAC for approval before the final draft of the Phase III Monitoring Plan is submitted to the Washington Support Office on December 15. For those of you who were interested in the meeting but could not attend, the presentation, handouts, and minutes are being posted to our website:
<http://www.nature.nps.gov/im/units/ncrn/index.html>

For more information about monitoring program, contact Marcus Koenen, Monitoring Coordinator, (202-342-1443 x 216; Marcus_Koenen@nps.gov).

This Newsletter is sent out quarterly by the National Capital Region Network Inventory and Monitoring Program. The staff is based out of the NPS Center for Urban Ecology, 4598 MacArthur Blvd. NW, Washington DC 20007. Please pass it on to interested individuals. If you would like to be added to or deleted from the mailing list, please contact Marcus Koenen (Marcus_Koenen@nps.gov; 202-342-1443 x 216).